



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/828,341

04/21/2004

Fumiyoshi Yonezawa

Q80990

5470

23373

7590

08/23/2005

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

KIRKLAND III, FREDDIE

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/828,341	Applicant(s) YONEZAWA, FUMIYOSHI	
	Examiner Freddie Kirkland III	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/828,341.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/21/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kohmura et al. U.S. Patent Application Publication 2002/0023485 A1.

With respect to claim 1, Kohmura et al. teaches, “an intake air flow rate measuring device of an internal combustion engine, comprising a measurement structure (detection unit 3) that is attached to an intake pipe (main flow pipe 10) of the internal combustion engine so as to project into an intake passage and measures an intake air flow rate of the internal combustion engine (page 1 paragraph 2), the measurement structure including: an air inlet located in the intake passage on an upstream side (page 7 paragraph 128 lines 9-13, flow inlet 2a); an air outlet located in the intake passage on a downstream side (page 7 paragraph 128 lines 9-13, flow outlet 2b); a first passage extending from the air inlet to the air outlet (figure 5, 22 bypass flow path); a shunt plate extending in a direction that crosses an axis of the intake passage and having an edge that is adjacent to the first passage (figure 5, partition 8); a second passage formed around the shunt plate to bypass the first passage (figure 5, second flow path 30); and an air flow rate measuring element disposed in the second passage (figure 5, detection element 7), wherein the edge of the shunt plate is located on a imaginary line (figure 5, center line located in the bypass flow path) or distant from the imaginary line to the side of the second passage (figure 5, partition 5 is located above the center line), in which the imaginary line is parallel to the axis of the intake passage

Art Unit: 2855

and passing through a top end of the air inlet (figure 5, the center line runs parallel to the main flow and is located on the top half of the bypass flow path)."

With respect to claim 2, the reference teaches, "the second passage comprises an inlet-side passage extending in a direction that crosses the first passage, an internal passage that is bent from the inlet-side passage so as to extend approximately parallel with the axis of the intake passage, and an outlet-side passage that is bent from the internal passage and merges into the first passage (figure 5)."

With respect to claim 3, the reference teaches, "the measurement structure includes a step portion that is adjacent to the intake passage so as to be opposed to the outlet-side passage of the second passage and to widen the first passage (figure 5, the edge of the outlet 2b includes a step portion that widens the bypass flow 22 into the main flow)."

With respect to claim 4, the reference teaches, "the measurement structure is attached to the intake pipe in such a manner that the internal passage of the second passage is located above the first passage (figure 5, the second flow path 30 is located above the bypass flow 22)."

With respect to claim 5, the reference teaches, "the first passage extends approximately parallel with the axis of the intake passage and a top end of the air outlet is approximately at the same height as that of the air inlet (figure 5, bypass flow path 22 runs parallel to the main flow and inlet 2a and outlet 2b approximately line up)."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohmura et al. U.S. Patent Application Publication 2002/0023485 A1 in view of Nagasaka et al. U.S. Patent 5,804,718.

With respect to claim 7, the Kohmura et al. reference teaches, “an intake air flow rate measuring device of an internal combustion engine, comprising a measurement structure (detection unit 3) that is attached to an intake pipe (main flow pipe 10) of the internal combustion engine so as to project into an intake passage and measures an intake air flow rate of the internal combustion engine (page 1 paragraph 2), the measurement structure including: an air inlet located in the intake passage on an upstream side (page 7 paragraph 128 lines 9-13, flow inlet 2a); an air outlet located in the intake passage on a downstream side (page 7 paragraph 128 lines 9-13, flow outlet 2b); a first passage extending from the air inlet to the air outlet (figure 5, 22 bypass flow path); a second passage formed around the shunt plate to bypass the first passage (figure 5, second flow path 30); and an air flow rate measuring element disposed in the second passage (figure 5, detection element 7),”

But Kohmura et al. fails to teach a “a shunt plate having a plate-like portion extending in a direction that crosses an axis of the intake passage and an inclined portion that is continuous with the plate-like portion and projects into the first passage so as to be inclined toward the air outlet.”

The Nagasaka et al. reference teaches a guide section 24 (figure 1b) for guiding the bypass flow toward the downstream side of the tube section (col. 11 lines 20-21). As shown in figure 1b the guide section 24 projects into the first passage and is also inclined toward the air outlet.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the guide section from Nagasaka et al. in the Kohmura device in order to stabilize the flow of air in the bypass passage (Nagasaka col. 1 lines 41-53).

Allowable Subject Matter

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 8 is allowed.

The following is an examiner's statement of reasons for allowance:

With respect to claim 6, the claim is found to be allowable over the prior art because the prior art fails to teach a shunt plate that has a branch extending approximately parallel with the axis of the intake passage and forms an auxiliary air outlet of the second passage that is separate from the air outlet of the measurement structure in combination with the remaining claim steps.

With respect to claim 8, the claim is found to be allowable over the prior art because the prior art fails to teach an intake air flow rate measuring device of an internal combustion engine, comprising a shunt plate having a plate-like portion extending in a direction that crosses an axis of the intake passage and an inclined portion that is continuous with the plate-like portion, projects into the first passage so as to be inclined toward the air inlet, and has a through-hole extending parallel with the axis of the intake passage.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

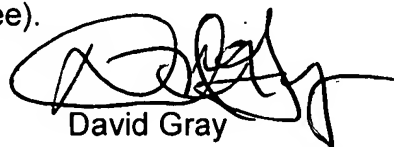
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freddie Kirkland III whose telephone number is 571-272-2232. The examiner can normally be reached on Monday through Friday 8am-5pm.

Art Unit: 2855

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'David Gray', is positioned above the printed name.

David Gray

Primary Examiner

FKIII